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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/799,510	03/12/2004	ChoonHoc Koh	STL11595	1740	
7590	02/23/2006		EXAMINER OLSON, JASON C		
David K. Lucente Seagate Technology LLC Intellectual Property - COL2LGL 389 Disc Drive Longmont, CO 80503			ART UNIT		PAPER NUMBER
			2651		

DATE MAILED: 02/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/799,510

Applicant(s)

KOH ET AL.

Examiner

Jason C. Olson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 30 November 2005.  
2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-14, 16-22, 24 and 30-36 is/are pending in the application.  
4a) Of the above claim(s) 31 and 33 is/are withdrawn from consideration.  
5) ☒ Claim(s) 34-36 is/are allowed.  
6) ☒ Claim(s) 1-5, 7, 8, 11, 12, 17, 19, 30 and 32 is/are rejected.  
7) ☒ Claim(s) 6, 9, 10, 13, 14, 16, 18 and 20-24 is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 12 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Election/Restrictions*

Claims 31 and 33 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim.

Election was made **without** traverse in the reply filed on 05/25/05.

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-5, 7, 8, 11, 12, 17, 19, 30, and 32 are rejected under 35 U.S.C. 102(e) as being anticipated by Teng et al. (US 6,876,510), hereafter Teng.

Regarding claim 1, Teng teaches an actuator configured to support a transducer (see col. 3, ln. 63-col. 4, ln. 5); and a position detector (see col. 4, ln. 4-5; the head detects the position) configures to determine a former stationary position of the transducer (see col. 4, lns. 48-50 and 57-60; and col. 6, ln. 43-50; the former stationary position is the latched position) based on a latter motion pattern of the actuator obtained from application of a current profile of controlled variable magnitude to the actuator (see col. 5, lns. 24-35 and 42-44).

Regarding claim 2, Teng teaches the actuator comprises a voice coil to which the current profile is applied (see col. 4, ln. 11-20).

Regarding claim 3, Teng teaches a latch configured to urge the actuator toward a predetermined position (see col. 4, ln. 31-33 and figure 9, item 910).

Regarding claim 4, Teng teaches at least one crash stop configured to limit a range of motion of the actuator (see col. 4, ln. 33-35 and figure 9, item 912).

Regarding claim 5, Teng teaches the former stationary position comprises a position adjacent a data storage area of a storage disc (see figure 2, items 200, 201, and 220).

Regarding claim 7, Teng teaches a programmable processor configures to spin-up the disc (see col. 1, ln. 30-45); detect the latter motion pattern after the spin-up (see col. 4, ln. 57-60 and col. 5, ln. 24-35), and generate a digital indication of a position of the transducer prior to said spin-up in relation to said latter motion pattern (see col. 5, ln. 60-col. 6, ln. 35; "ndatstate" is a digital indication of the position of the transducer prior to spin-up).

Regarding claim 8, Teng teaches the actuator supports a plurality of additional heads adjacent at least one additional disc, the discs being mounted for co-rotation on a disc stack (see figure 1, items 122, 123, 133, 134, and 150).

Regarding claim 30, Teng teaches where the applied current is sequentially increased from a first value to a maximum value and a second subsequent portion wherein the applied current is sequentially decreased from the maximum value to the first value (see col. 5, lns. 24-35; M1=first value, M2=max value, M3 =first value, N=3).

Regarding claims 11, 12, 17, 19, and 32: method claims 11, 12, 17, 19, and 32 are drawn to the method of using the corresponding apparatus claimed in claims 1-5, 7, 8, and 30.

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Therefore method claims 11, 12, 17, 19, and 32 correspond to apparatus claims 1-5, 7, 8, and 30 and are rejected for the same reasons of anticipation as used above.

### ***Allowable Subject Matter***

Claims 34-36 are allowed. The prior art fails to teach alone or in combination a position detector configured to determine a former position of the transducer in relation to a latter motion pattern of the actuator, and wherein the position detector comprises an analog-to-digital converter operatively coupled across the voice coil.

Claims 6, 9, 10, 13, 14, 16, 18, and 20-24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### ***Response to Arguments***

Applicant's arguments with respect to claims 1-12, 16-22, 24, 28, and 29 have been considered but are moot in view of the new ground(s) of rejection. The examiner has relied upon Teng et al. (US 6,674,604) to reject claims 1-5, 7, 8, 11, 12, 17, 19, 30, and 32 under 35 USC 102(e).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason C. Olson whose telephone number is (571)272-7560. The examiner can normally be reached on Monday thru Thursday 7:30-5:30; alternate Fridays.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wayne Young can be reached on (571)272-7582. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JCO  
February 16, 2006



WAYNE YOUNG  
SUPERVISORY PATENT EXAMINER